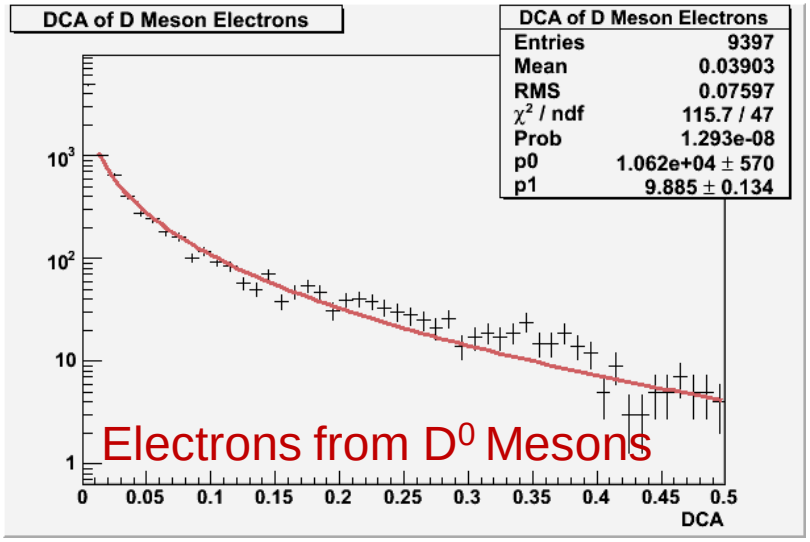
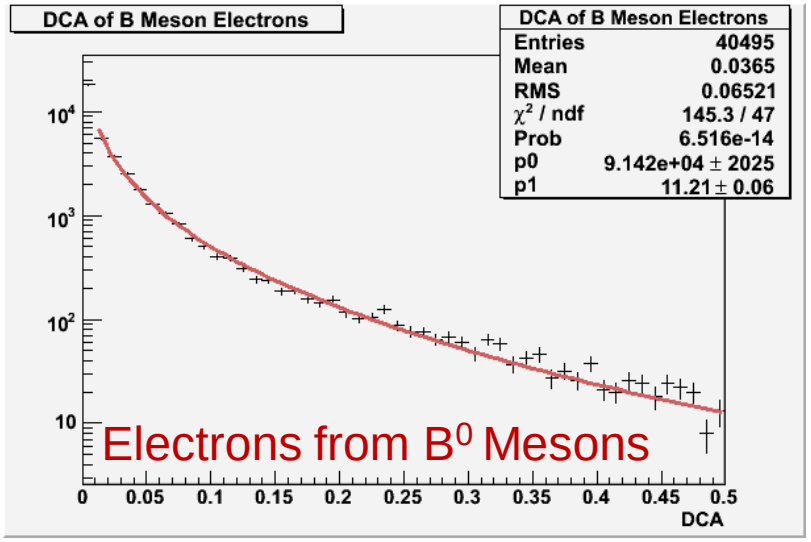
Non Blind-Analysis Update

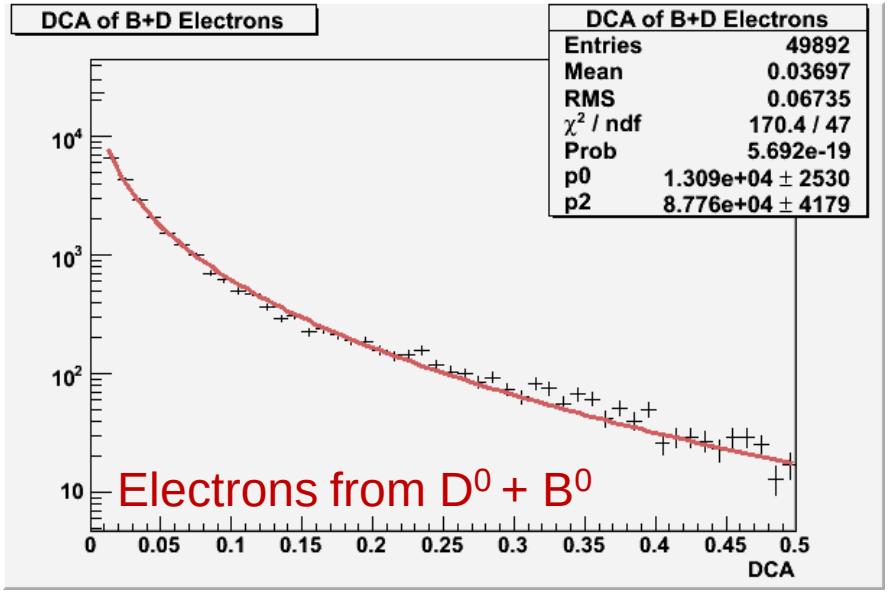
Stephen Baumgart

- D^0 and B^0 simulations are finished. Other particles are coming soon.
- Statistics have been increased such that the previous 4 p_t bins have been made into 8.
- The P_t dependence of the DCA-slope has been found via fit.
- It does not look like there are any large peaks in the DCA distribution above the fit.

DCA Distributions from new DSTs

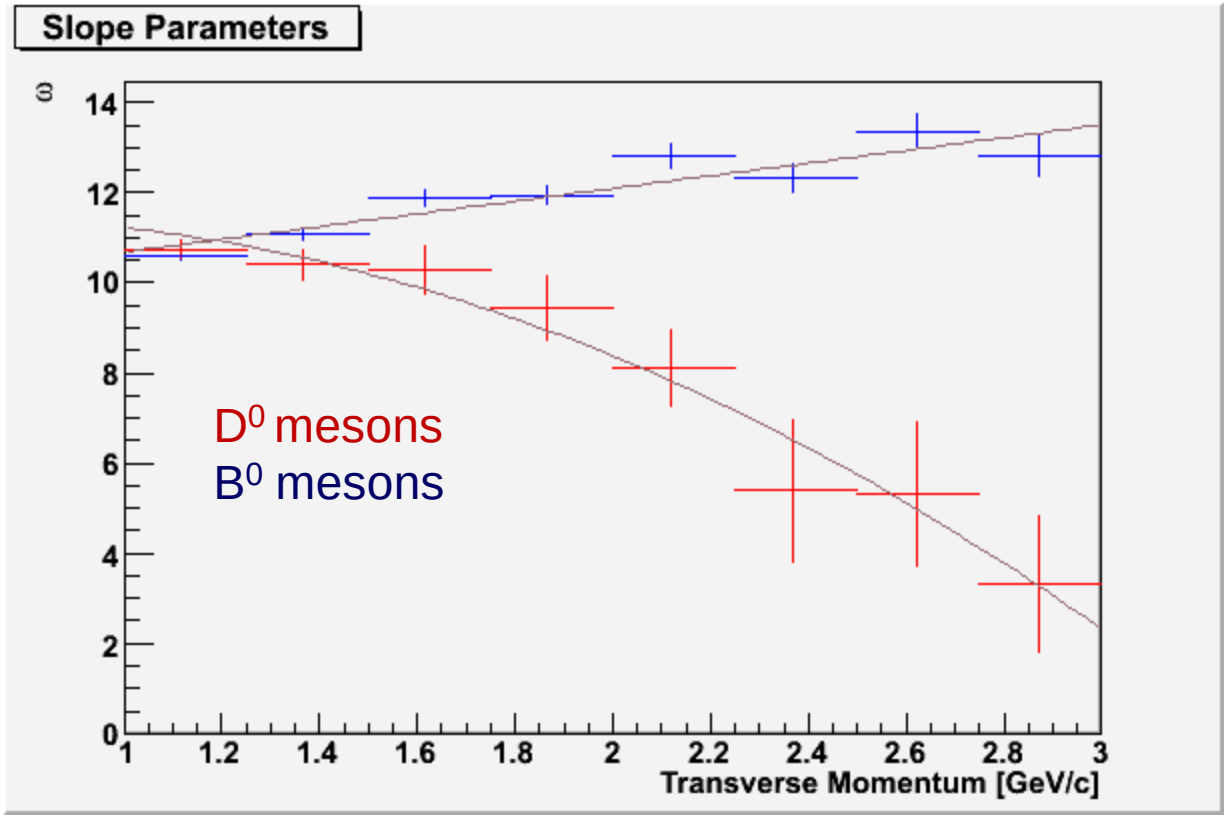






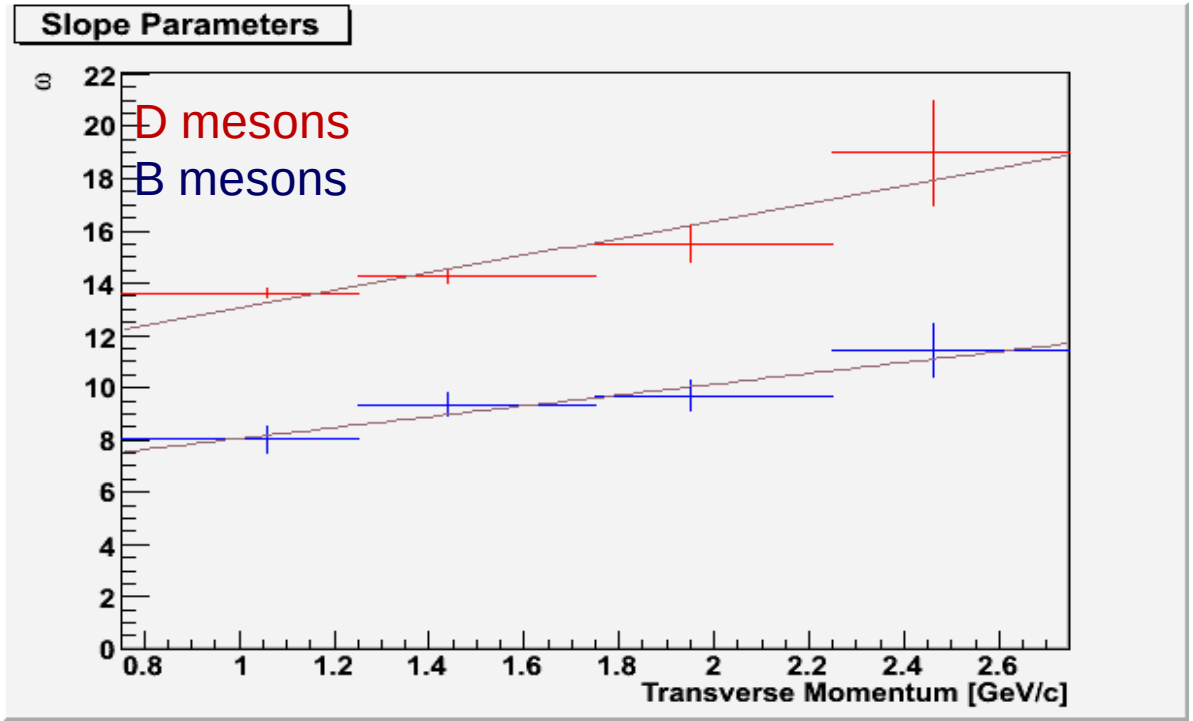
p_t-dependence of DCA-slope

- As the P_t rises, it becomes easier to separate D^0 and B^0. But if the other particles are added, what happens?



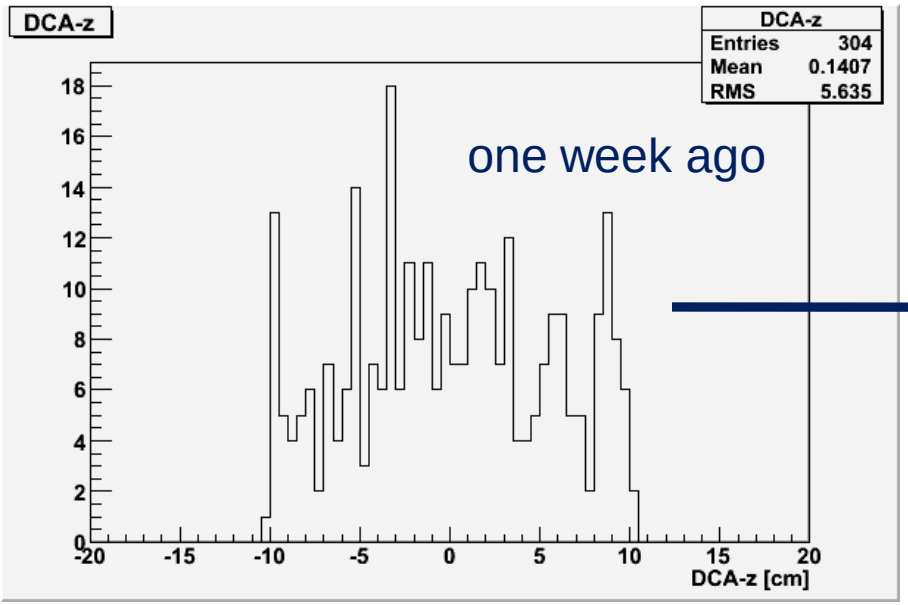
Previous p_t-dependence of DCA-slope

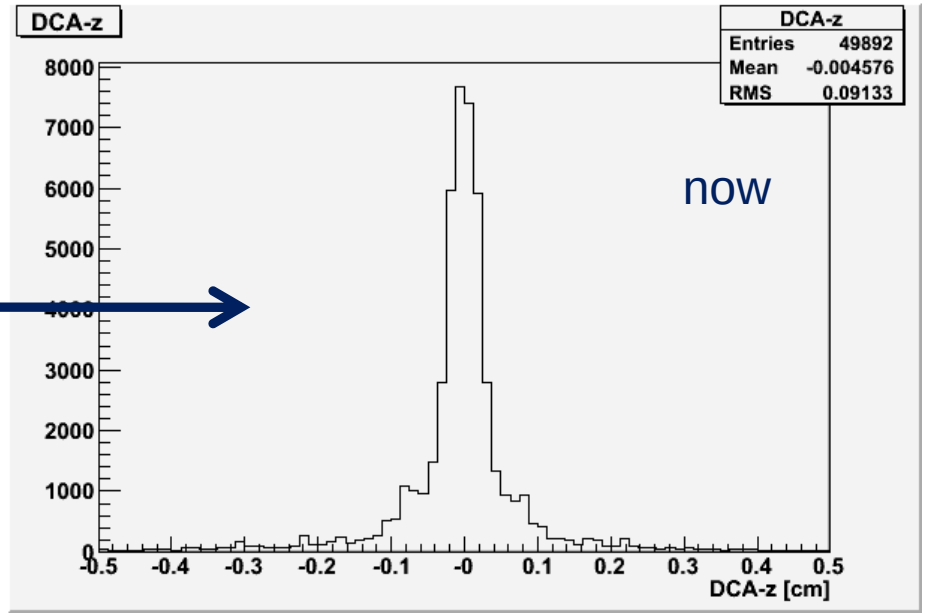
- The previous DSTs (from Sasha) had different p_t-dependencies for DCA, particularly for the D^0. Is this due to the Kalman Fit bug? Or is this due to the addition of other particle species? There may also be a bug in my own code.



Wide DCA-z Problem

- Last week I reported a very wide DCA-z distribution. This was due to a conflict between the PISA z-vertex parameter and the Pythia input.





Plans for Coming Week

- Wait for D, D_s, B, B_s results.
- Check to see how different original p_t-distributions affect DCAs.
- Fix any problems
- If everything is okay, start Blind Analysis.